

The following is a complete listing of all claims in the application, with an indication of the status of each:

Listing of claims:

- 1 1. (Currently amended) A computer implemented product catalog for use in a
2 web-centric collaborative engineering environment (CEE) for providing an
3 inter-enterprise collaborative mechanism for organizations developing and
4 maintaining complex system products, the CEE providing a federated
5 architecture linking multiple systems and applications together to enable
6 collaboration among enterprise members, comprising:
 - 7 an object oriented database management system (ODBMS) managing
8 an associative object model (product model) for providing a persistent
9 understanding of product and program information, assets and tools available
10 in the enterprise;
11 a plurality of part objects forming a product catalog, the part objects
12 being defined by the product model and stored in the ODBMS, wherein each
13 part object has intrinsic characteristics corresponding to a plurality of default
14 environment values, the product catalog providing an application independent
15 means for supporting engineering tools through intelligent interfaces;
16 means for generating part references, where a part reference refers to a
17 corresponding part object in the product catalog, and wherein the part
18 reference has characteristics customized for a project that override or extend
19 the intrinsic characteristics of its corresponding part object; and
20 means for linking members of the enterprise with part objects and
21 customized part references via a collaborative engineering environment
22 (CEE), the CEE having a framework for collaboration which provides access

FE-00461

09/666,545

05400004AA

Reply to office action mailed 01/23/2004

23 control, security, search mechanisms, concurrency control, versioning,
24 information structuring, information mapping and exchange, wherein the
25 information available to each member is information necessary for the
26 member to complete role and team based tasks, and wherein the linking means
27 comprises a plurality of tools, each tool communicating information with the
28 ODBMS.

1 2. (Currently amended) A system as recited in claim 1, wherein a part object
2 is a collection of one or more ~~other~~ part objects.

1 3. (Original) A system as recited in claim 1, wherein a part objects represent
2 commercial-off-the-shelf (COTS) hardware, electrical, software, or abstract
3 component types.

1 4. (Original) A system as recited in claim 1, wherein the product catalog
2 supports part objects representing commercial-off-the-shelf (COTS) hardware,
3 electrical, software, and abstract component types.

1 5. (Original) A system as recited in claim 1, wherein the product catalog
2 provides a single point of information management with unlimited application
3 by reference.

1 6. (Original) A system as recited in claim 1, wherein the CEE enables
2 members of the enterprise to capture technology and model information and
3 associate the captured information with a system component for entry into the
4 product catalog.

BEST AVAILABLE COPY

FE-00461

09/666,545

05400004AA

Reply to office action mailed 01/23/2004

1 7. (Original) A system as recited in claim 6, wherein the parts and
2 components in the product catalog are extensible to an existing user
3 community in an enterprise, the user community requiring customization of
4 parts for use in projects associated with the enterprise.

1 8. (Currently amended) A system as recited in claim 1, wherein the product
2 catalog provides a single extensible interface for ~~peer~~ enterprise member
3 information management systems.

1 9. (Original) A system as recited in claim 1, wherein the product catalog
2 supports part objects representing projected or hypothetical components.

1 10. (Original) A system as recited in claim 1, wherein intrinsic information
2 of a component, the component being represented by one or more parts in the
3 product catalog, is augmented with implementation specific information.

1 11. (Currently amended) A method for customizing a product catalog for use
2 by a project in a collaborative engineering environment (CEE) which provides
3 an inter-enterprise collaborative mechanism for organizations developing and
4 maintaining complex system products, and provides a federated architecture
5 linking multiple systems and applications together to enable collaboration
6 among enterprise members, comprising:
7 generating a product model for the project, wherein the product model
8 defines project related informational elements and their corresponding
9 characteristics, and wherein the project related informational elements may
10 differ based on domain area;
11 identifying elements (parts) existing in a enterprise-wide product
12 catalog;

BEST AVAILABLE COPY

FE-00461

09/666,545

05400004AA

Reply to office action mailed 01/23/2004

13 customizing the existing parts for the project, by referring to default
14 characteristics of the existing parts and when desired specifying overriding
15 ~~and/or~~ or extending part characteristics unique to the project;
16 if necessary to fully implement the project product model, providing
17 new parts for the product catalog; and
18 integrating the project product model with domain-specific tools and
19 application used by members of the enterprise, thereby enabling collaboration
20 among enterprise members who have immediate access to information stored
21 in the ODBMS by other members, wherein each member performs domain
22 specific tasks using customized tools and applications and stores results of
23 their performed tasks in the ODBMS, thereby allowing access of their
24 information by other members of the enterprise.

1 12. (Original) A method as recited in claim 11, wherein the product catalog
2 utilized for identifying parts in the identifying step and providing new parts in
3 the providing steps comprises:

4 an object oriented database management system (ODBMS) managing
5 an associative object model (product model) for providing a persistent
6 understanding of product and program information, assets and tools available
7 in the enterprise;

8 a plurality of part objects forming a product catalog, the part objects
9 being defined by the product model and stored in the ODBMS, wherein each
10 part object has default characteristics corresponding to a default environment;

11 means for generating part references, where a part reference refers to a
12 corresponding part object in the product catalog, and wherein the part
13 reference has characteristics customized for a project that override the default
14 characteristics of its corresponding part object; and

FE-00461

09/666,545

05400004AA

Reply to office action mailed 01/23/2004

15 means for linking members of the enterprise with part objects and
16 customized part references via a collaborative engineering environment
17 (CEE), the CEE having a framework for collaboration which provides access
18 control, security, search mechanisms, concurrency control, versioning,
19 information structuring, information mapping and exchange, wherein the
20 information available to each member is information necessary for the
21 member to complete role and team based tasks, and wherein the linking means
22 comprises a plurality of tools, each tool communicating information with the
23 ODBMS.

1 13. (Original) A method as recited in claim 11, wherein the step of providing
2 new parts, further comprises:

3 capturing technology and model information by members of the
4 enterprise; and

5 associating the captured information with a system component for
6 entry into the product catalog.

1 14. (Currently amended) A method as recited in claim 13, further
2 comprising:

3 entering new part objects into the product catalog, wherein the new
4 part objects correspond to system components associated with the captured
5 information in the associating step.

1 15. (Currently amended) A method as recited in claim 13, further
2 comprising:

3 entering updated part object information into the product catalog when
4 captured information results in necessary modification to an existing part and
5 not identification of a new part, wherein the updated part objects correspond

FE-00461

09/666,545

05400004AA

Reply to office action mailed 01/23/2004

6 to system components associated with the captured information in the
7 associating step.

1 16. (Original) A method as recited in claim 13, wherein the new or updated
2 part objects are reviewed by at least one member of the enterprise having
3 authority to accept or reject the part objects, and wherein if a new or updated
4 part object is rejected it is not entered into the product catalog, but if a new or
5 updated part object is accepted, it is entered into the product catalog.

1 17. (Original) A method as recited in claim 16, further comprising notifying
2 members of the enterprise that new parts or part information are available.

1 18. (Original) A method as recited in claim 17, wherein the step of notifying
2 further comprises automatically updating project specific parts and
3 components with modified part information for updated parts.

1 19. (Original) A method as recited in claim 11, further comprising:
2 retrieving part information from the part catalog by members of a
3 project within the enterprise; and
4 customizing retrieved part information for use in a project.

1 20. (Original) A method as recited in claim 19, wherein the step of
2 customizing further comprises:
3 maintaining desired default characteristics for retrieved part
4 information;
5 overriding default characteristics for retrieved part information, as
6 necessary to represent system components of the project; and

BEST AVAILABLE COPY

FE-00461

09/666,545

05400004AA

Reply to office action mailed 01/23/2004

7 extending part information with additional part characteristics, as
8 necessary to represent system components of the project, the additional part
9 characteristics being omitted from part information retrieved in the product
10 catalog.

BEST AVAILABLE COPY